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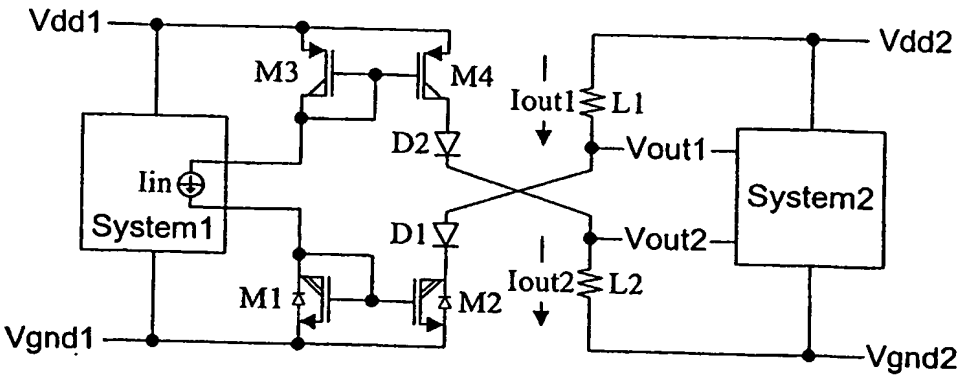
(54) Title: CONFIGURABLE MEMORY PARTITIONING IN HARDWARE



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(57) Abstract: A buffer management system (100) partitions a total memory space (200) into a programmable number of substantially uniform size buffers (220-223). An application communicates the desired number of buffers to the buffer management system (290), then allocates these buffers among the data-transfer paths used by the application. Optionally, multiple uniform-size buffers can be merged to form a single logical buffer. By effecting the partitioning of the total memory space (200) into uniform-size buffers (220-223), the overhead required to manage the multiple buffers is minimized. By providing a selected number of managed buffers to an application, the application is able to allocate buffers as required, without having to be concerned with the details of buffer management.

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